

## REMARKS

These remarks are in response to the Office Action mailed October 12, 2007.

Claims 2-3 have been canceled without prejudice to Applicants' right to prosecute the canceled subject matter in any divisional, continuation, continuation-in-part or other application. Claims 1, 5, 10, 13, 19, 21 and 30. The amendments are supported throughout the specification and claims as filed. For examples, support can be found in original claims 2-3; at paragraph 61, which teaches that non-nucleosomal polynucleotides are converted into nucleosomal polynucleotides; and at paragraph 66. Claim 32 and 33 have been added. Support for new claim 32 can be found, e.g., at paragraph 79. No new matter is believed to have been introduced.

### I. SEQUENCE RULE COMPLIANCE

Submitted herewith are paper and computer readable form of the sequence listing. Applicants respectfully request entry of the sequence listing into the present application.

### II. REJECTION UNDER 35 U.S.C. §101

Claims 1-3, 13, 16 and 30 stand rejected as allegedly claiming non-statutory subject matter. Claims 2-3 have been canceled, thus the rejection is moot with respect to these claims. Claims 1 and 30 (upon which the remaining claims depend either directly or indirectly) have been amended to recite "an isolated polynucleotide". Applicants believe that this overcomes the rejection. Accordingly, Applicants respectfully request withdrawal of the rejection.

### III. REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claims 5 and 10 stand rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action alleges that the term "exogenous" is unclear in the context of the claims. Applicants have amended claims 5 and 10 to more clearly set forth the invention. Applicants believe that the amendment clearly set forth what is being claimed. Accordingly, Applicants respectfully request withdrawal of the rejection.

**IV. REJECTION UNDER 35 U.S.C. §102**

Claims 1-3, 16 and 30 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Kanaar *et al.* (Trends in Cell Biol., 8:483-489, 1998). Claims 2-3 have been canceled, thus the rejection is moot with respect to these claims. Applicants respectfully traverse this rejection.

It appears that the Kanaar *et al.* reference is being applied under inherent anticipation (*i.e.*, that "nucleic acids in eukaryotic cells are associated with histones. . .", page 6 of the Office Action). Applicants submit that existing methods of recombination utilize naked DNA (*i.e.*, naked plasmid DNA without histones) in recombination techniques. The specification also indicates that success with such naked DNA is limited. Kanaar *et al.* teach only the use of naked DNA in combination with eukaryotic cellular DNA. Kanaar *et al.* do not teach or suggest first generating a nucleosomal polynucleotide comprising histones prior to contact with, for example, eukaryotic cellular DNA. More particularly, Kanaar *et al.* do not teach or suggest the element of "contacting an isolated polynucleotide comprising a desired sequence to be recombined with proteins that promote chromatin formation to generate a nucleosomal polynucleotide comprising histones" as set forth in Applicants' claimed invention. As set forth in the specification recombination efficiencies are greatly increased when the DNA to be recombined is in the form of chromatin.

Kanaar *et al.* do not teach or suggest all the elements of Applicants' claimed invention and furthermore does not suggest the benefits of such techniques. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1-3, 10, 13, 16, 17, 19, 21 and 30 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Wielsmuller *et al.* (J. Virology, 70:737-744, 1996). Claims 2-3 have been canceled, thus the rejection is moot with respect to these claims. Applications respectfully traverse this rejection.

Neither Wielsmuller *et al.*, Polinsky *et al.* or Kanaar *et al.* teach or suggest contacting an isolated polynucleotide with proteins to form a nucleosomal polynucleotide comprising histones. In other words, there is no teaching or suggestion of forming a chromatin structure from an isolated polynucleotide lacking histones to promote recombination. At most, what is taught is that SV40 has

histones associated with it in nature and can undergo recombination. Thus, the teachings when combined fail to teach or suggest a method of Applicants' claimed invention. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1-3, 5, 8, 10, 13, 16, 17 and 30 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Datta *et al.* (J. Biol. Chem., 276:18018-18023, 2001) as evidenced by Polisky et all (PNAS USA, 72:2895-2899, 1975). Claims 2-3 have been canceled, thus the rejection is moot with respect to these claims. Applicants respectfully traverse this rejection.

Neither Datta *et al.* or Polisky *et al.* teach or suggest contacting an isolated polynucleotide with proteins to form a nucleosomal polynucleotide comprising histones. In other words, there is no teaching or suggestion of forming a chromatin structure from an isolated polynucleotide to promote recombination. At most the references teach that SV40 has histones associated with it in nature and that recombination can occur. Thus, the teachings when combined fail to teach or suggest a method of Applicants' claimed invention. Accordingly, Applicants respectfully request withdrawal of the rejection.

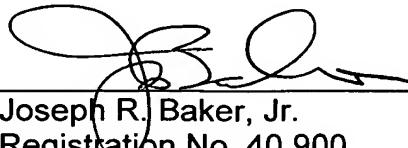
The Examiner is invited to contact the undersigned at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY LLP

Date: January 8, 2008

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